Textual Data and Digital Texts in the Undergraduate Classroom
Final White Paper
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About the Institute

"Textual Data and Digital Texts in the Undergraduate Classroom" focused on applying the methods and tools of the digital humanities to undergraduate pedagogy. Through a series of in-person and virtual sessions, workshops, and asynchronous communication (email and Slack channel), the institute's 22 participants gained skills to teach the digital humanities (DH).

Background

The institute's focus on pedagogy aimed to lower barriers to entry to DH. Despite the proliferation of digital humanities centers, majors, and minors, there has been a gap in available training. While the digital humanities have gained much ground in higher education in the last two decades, this growth has developed unevenly. For some institutions and individuals with little or no access to the necessary training, resources, or support, engaging in digital humanities scholarship remains difficult, if not out of reach. This institute focused on teaching the digital humanities across the humanities curriculum, capitalizing on the classroom as a space that can bring DH into many hands and thus expand access while building capacity at the local level. The classroom might be a semester-long course, a library-based workshop for teachers or students, a guest-led single class session, a reading or working group, or other learning space. As such, the classroom engages undergraduate and graduate students, departmental faculty, librarians, and technologists.

Especially for those in under-resourced institutions or positions, undertaking a large-scale digital research project is simply not feasible precisely because of the lack of infrastructure: from server space to grant support, from access to training, to the time to devote to it. The space of the classroom offers the opportunity for methodological experimentation without taking on the scale, or risk, of a large project. The classroom is an ideal space for students as well as for teachers to experiment with the digital humanities, and to do so in non-resource intensive ways. Moreover, teaching with the digital humanities exposes young scholars to new methods for humanities research, an experience that can inform future research and teaching for those who continue in the academy.

The analytical skills that classroom DH builds fit well with a traditional humanities curriculum, as many successful pedagogical experiments—including this institute—have shown. "Textual Data and Digital Texts in the Undergraduate Classroom" addressed two gaps that remain in digital humanities pedagogy. First, the expansion of the digital humanities has included curriculum and pedagogy, with steady growth of new DH concentrations, minors, and majors,[1] but integrating DH methods into humanities education more broadly, into a wide range of courses not necessarily focused on the digital humanities as such, remains piecemeal. For a non-DH-expert who wants to integrate the digital humanities into, say, a literature survey or history seminar, there are a wealth of tools and one-off examples, but no clear roadmap for how to use and incorporate them, let alone understand the methods behind them. Second, despite the vigorous debate of computer-aided analysis of texts and "distant reading" in a variety of forms, these methods are not yet part of the core methodologies taught in most undergraduate and graduate curricula. Thus, there remains slower uptake in humanities pedagogy of DH generally as well as, more specifically, data driven analysis using computational analysis and visualization.

Comprised of a week-long in-person session in July 2018 and seven virtual sessions and asynchronous communication in the year following, the institute was structured to give participants the time and space to learn new approaches as well as integrate them into teaching. While the in-person sessions focused on methods and tools for creating and analyzing textual data, the asynchronous sessions focused on pedagogical praxis, engaging participants with real world examples and best practices in teaching (with) the digital humanities. Attendees thus gained a foundation in key methods, issues, and tools in the creation and analysis of data derived from text, as well as ways to incorporate them in the undergraduate classroom. The final phase of the institute, in which participants developed and shared a pedagogical artifact for open-access publication, ensured that the institute supported not just the conception but also the development and implementation of teaching DH.

Participants

We sent a call for participants to groups in humanities disciplines, academic libraries, and digital humanities, using Twitter, listservs, email groups, and direct outreach. Sending the call to a professionally and disciplinary diverse population resulted in a diverse set of participants. From 55 applicants the principal investigators, together with Stephen Cunetto, our partner at Mississippi State University, we selected 22 participants with an eye towards assembling a group of participants who could best benefit from the institute, targeting those who have had little digital humanities training, and especially those who have limited access to such training in their own institutions. (See Appendix A for a full list of participants.)

[1] Chris Alan Sula, "A Survey of Digital Humanities Curricula at Present," Keystone Digital Humanities Conference 2015, http://chrisalensula.org/a-survey-of-digital-humanities-curricula-at-the-present-time/.

The map below shows the states that our participants represent. The majority hail from Florida and Louisiana and the map is consistent with our goals of prioritizing those from the southeast. Selecting participants by region was our first but not our only concern. We also wanted a diversity of institutions and experience. The institutions represented include large R1s like LSU, University of Florida, and Mississippi State University, as well as liberal arts schools, community colleges, and a women's college.

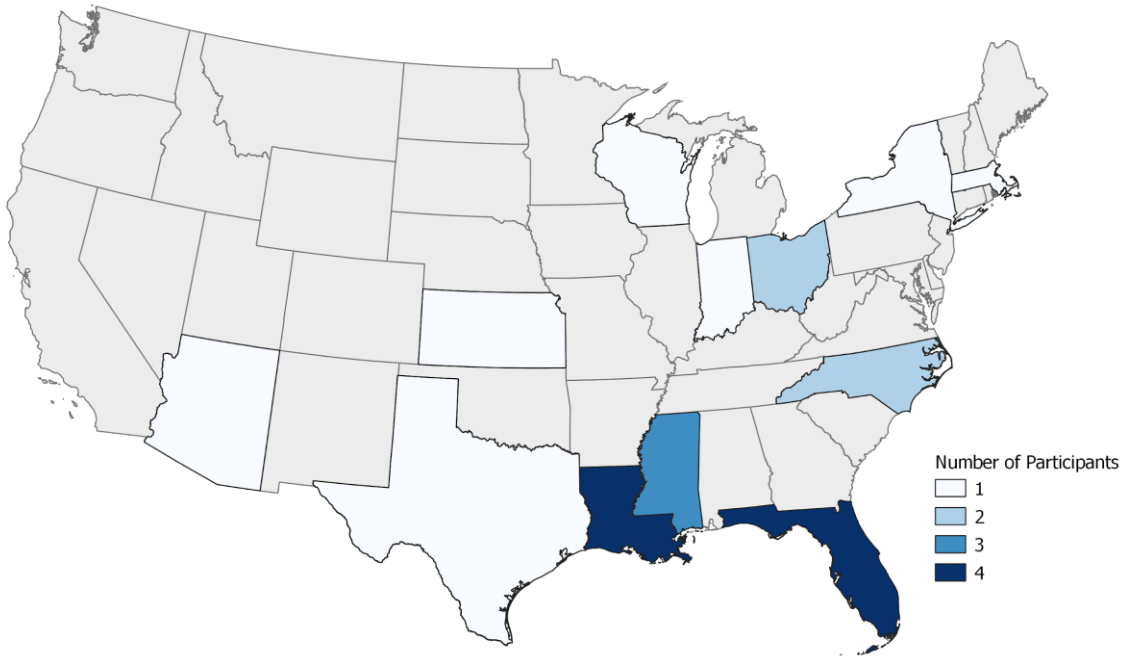

Figure 1. Map of participants' institutions by state.

Our participants come from different professional positions and disciplinary backgrounds, and as a group are newcomers to or novices in DH. They are departmental faculty of all levels (lecturers and assistant, associate, and full professors), librarians, and graduate students. Seven different humanities departments are represented. All of the participants hail from institutions where training in DH or traveling to such training would be difficult if not impossible. Due to this wide range of ability and prior training, the institute was designed to introduce as a range of open-source and largely free tools to show the possibilities of DH in pedagogy and in research as a whole.

Institute Structure

The first phase of the institute entailed creating foundations. We seeded our institute community by having the participants introduce themselves by sharing their goals and DH experiences in an online forum before we met in person. In addition, to create a shared intellectual starting point for the institute's explorations, we provided a set of readings for our participants. (See our full syllabus here https://dsl.lsu.edu/nehtextualdata/schedule/.)

The in-person component of the institute was held at Mississippi State University (MSU), hosted by the MSU Libraries, from July 16-20, 2018. There, the participants received hands-on training in DH methods and tools through workshops and discussions led by the institute directors and several guest faculty. Thomas Padilla and Brandon Locke instructed the group on data collection and data structuring from a basic idea of text as data, to preparing this data for use in an analysis. Participants gained confidence in using the command line, web scraping, and cleaning data. They also engaged with several data-centric methods, such as introductory data visualization and mapping, network analysis, text analysis, and topic modeling. Alicia Peaker guided them on displaying their work and engaging students with online authoring and publication using multimodal platforms such as Scalar and Omeka.

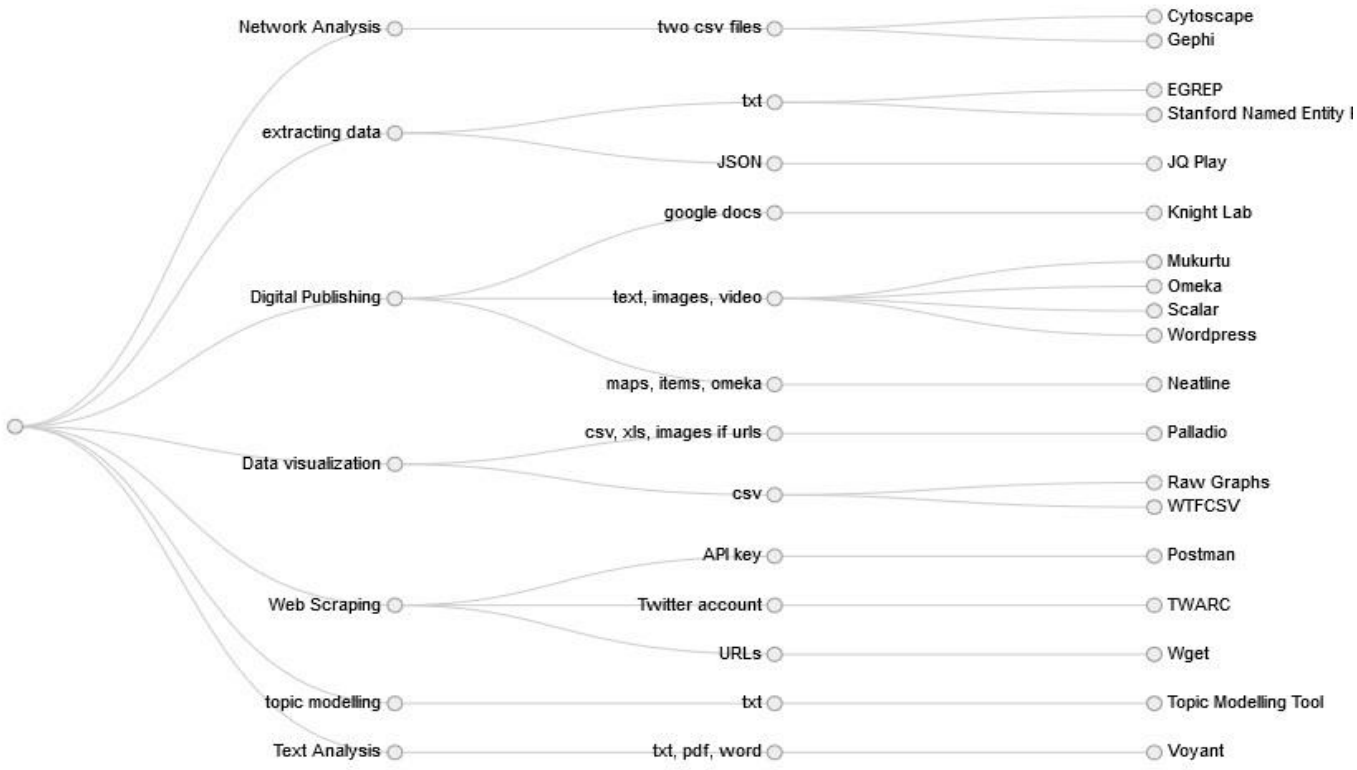

Figure 2. Visualization of the methods, materials required, and tools addressed at the in-person session.

The institute's goal was not just to introduce new methods, but to ensure that participants could incorporate them into their teaching praxis. After each hands-on session the institute directors (Coats and McGinn) led a pedagogical session where participants could process what we had just learned and then discuss how they would, or would not, incorporate this method or tool into their own teaching. It also provided a space to identify and address common issues when teaching with technology, such as scaffolding, assessment, linking DH methods to course learning goals, and dealing with technological mishaps. Doing so had a two-fold effect: providing another way to process and thus learn the methods, and also providing space for participants to begin to develop their own teaching materials. In so doing, participants were able to tailor activities to their own professional roles, students, and institutions.

To continue our learning and conversations, we held virtual sessions from August 2018-May 2019. These virtual sessions helped our participants move from idea to implementation. With the sessions focused on how to teach DH, the sessions included five workshops with DH experts who have already used these methods in their teaching, and two sessions for participants to workshop their own teaching artifacts. The participants could ask logistical and practical questions about incorporating DH into their teaching, while learning about best practices, new tools, and teaching tips. Our roster of virtual presenters represent those who have thought deeply about bringing DH into the classroom:

- August 2018 | Pedagogical practice
    - Miriam Posner, Assistant Professor of Information Studies and Digital Humanities, UCLA
- October 2018 | Incorporating the digital humanities in subject-specific courses
    - Rachel Sagner Buurma, Associate Professor of English Literature, Swarthmore College
- January 2019 | Engaging undergraduates in the research process through text analysis
    - Michelle Moravec, Associate Professor of History, Rosemont College
- February 2019 | Undergraduate research and digital platforms
    - Jentery Sayers, Assistant Professor of English and Director of the Maker Lab in the Humanities, University of Victoria
- March 2019 | Developing your DH teaching
    - Lauren Coats and Emily McGinn, Institute Directors
- April 2019 | Engagement, ethics, and community
    - Jesse Stommel, Executive Director of the Division of Teaching and Learning Technologies, University of Mary Washington
- May 2019 | Developing your DH teaching
    - Coats and McGinn

The final phase of the institute was for participants to complete and share a pedagogical artifact

for their own teaching (with) DH. Each participant created a pedagogical artifact that fit their individual and institutional needs, which ranged from assignments and workshops for undergraduate courses across the humanities to workshops for teachers to DH inflected modes of assessment.

The institute structure was key to the institute's success. Having time for the institute participants to learn new skills and to meet each other during a week-long in person session, and then to provide a structure for continued engagement and support over the following year, proved very effective. So too was linking the institute learning to a pedagogical artifact, as creating their own teaching modules gave participants a way to put their learning into practice. While it was difficult to sustain the institute community over the academic year, having the participants and directors as a community provided a network within which we could collectively develop our ideas and propel our DH teaching and learning forward.

Outcomes & Pedagogical Artifacts

The pedagogical artifacts have been published in an open-access publication, *Textual Data and Digital Texts in the Undergraduate Classroom: A Pedagogical Anthology*, available via our institute website (https://dsl.lsu.edu/nehtextualdata/) and on Humanities Commons under a Creative Commons license. The robust library of teaching artifacts demonstrates ways that DH methods can be incorporated into the teaching missions of a variety of institutions and classes. With the publication, we provide a range of models that other teachers can easily adapt for their own use. This pedagogical anthology provides examples for others who would like to incorporate DH into their classes, whether a semester-long course or a single workshop, especially those who may have few other DH resources available to them yet would like to expand their DH expertise.

The publication evidences that participants gained new skills, and developed creative and thoughtful ways to engage students in DH. Two surveys participants completed, one at the conclusion of the in-person session (July 2018) and another at the conclusion of the program as a whole (July 2019), give insight into how the institute helped them develop as DH teachers. The survey responses were overwhelmingly positive. Our underlying goals with the institute were to provide DH training and support to under-resourced scholars, and to impact the digital pedagogy of our group. Both surveys make clear that these goals were met, and that the institute helped participants learn and teach DH. (20 of the 22 participants responded to the interim survey. 19 of the 22 participants responded to the final survey.) All respondents indicated they have in the past academic year or will in the upcoming academic year teach using the skills and methods in the institute. This response testifies to the efficacy of the institute structure and format, which

ensured not only that participants learned new DH methods but that they developed ways to teach them.

Many of the evaluative comments support the institute's focus on learning DH by starting small: using the classroom to develop small, attainable, and introductory DH modules. In response to a question about "what pedagogical insight or observation about teaching dh would you like to share with others," multiple participants emphasized the need to, in the words of one response, "keep it small!" The final survey showed that the institute's other major goal, to provide support and training to those who do not have access to DH infrastructures at their home institute, was also met: all 19 participants noted that the institute provided support or training not available on the participants' campuses. The responses to both the interim and final surveys indicate that what was most valuable to each participant varied depending on their home institutions, DH experience, and pedagogical goals. Thus some praised the institute for the hands-on workshops, while others mentioned the learning community, the chance to ask questions of experts, the workshops of their own teaching materials, or other aspects. What this variety demonstrated to the institute directors is that the institute's coverage of a range of methods and skills, the variety of ways to interact with participants, along with the inclusion of a range of experts as guest speakers (with varied professional and disciplinary backgrounds) were key to success. Indeed, many responses praised the institute's breadth: participants tended to comment on how much they learned about many different tools, methods, and pedagogical praxis.

This success is evident as the interim and final surveys revealed that each participant gained confidence in their DH skills after the in-person and virtual sessions. All but one participant indicated in the interim survey that they learned new skills, methods, and approaches to teaching DH. The final survey confirmed this strong response. Before the institute, only ten participants said they somewhat agreed or agreed that "I was confident implementing DH methods in a classroom or workshop." None of our participants indicated they strongly agreed and in fact three strongly disagreed. After the institute in response to the same question, all respondents agreed, to some degree, that they were "confident implementing DH methods," with nine agreeing strongly. One participant commented that their "digital humanities pedagogy has strengthened significantly thanks to the institute and the work over the course of the year. The exchange of ideas from scholars from a range of institutions and backgrounds was particularly helpful as I developed my own course and unit plans. The biggest impact the institute had on my teaching and work was to broaden the scope of my understanding of digital humanities tools and the implications (both positive and negative) of public-facing pedagogy." Clearly, the institute equipped participants with the knowledge and skills needed to use DH methods for teaching.

The virtual sessions proved to be immensely helpful in keeping the momentum of the in-person session and in building a sense of community among our participants. Our group learned a lot from hearing from a variety of experts how they teach (with) DH. Another participant commented that the virtual sessions provided them with "the pedagogical insights of established

dh practitioners to guide how [they] develop assignments and courses in the future...these resources are invaluable."

With the institute built from the recognition that teaching does not just happen in semester-long courses, the institute included those who teach DH in a range of professional roles. In turn, pedagogical artifacts are a testament to the many ways that teaching happens within colleges and universities. For example, most participants gravitated toward the methods and tools which seemed most within their and their students' reach. Thus, several of the pedagogical artifacts developed entail use of Voyant, a web-based platform for text analysis. Participants found that such tools that had low barriers to entry (relatively low learning curves, free, and web-based) fit their and their students' pedagogical needs. Matching pedagogical needs to available resources was a major subject of discussion throughout the institute. So too was developing DH teaching in ways that fit the variety of roles of the participants. For example, one of our participants had a change in career mid-way through the institute, moving from a tenure-track departmental position to one in program administration. Her artifact showcases how DH methods can be used for thoughtful qualitative assessment of students' work within a class or across a program. We share this example because it speaks to the depth of the institute's pedagogical anthology, and most of all the flexibility and wide applicability of the participants' creations to teaching in higher education today.

In many ways, the most significant impact of the institute has been and will be in the classroom: institute participants have already incorporated many of the tools and methods they learned into workshops and courses they lead in a wide variety of topics (world civilization, French language and literature, visual literacy, Caribbean history, British literature, and more). This pedagogical effect is not a one-time event but accrues semester by semester and workshop by workshop. For instance, one of the institute participants noted that they developed and taught a textual data activity in a smaller survey course, and is adapting it to teach to a large lecture class of about 175 students in Spring 2020. In other words, the institute's impact is already moving well beyond the 22 participants as they are introducing a large number of teachers and students at their home institutions to DH methods and tools. This amplifying effect was built into the logic of the institute's focus on teaching. Participants are impacting their students and are also, via an informal train-the-trainer model, spreading their new skills to other teachers across their campuses. The training provided by the institute thus not only serves the participants, but also benefits the participants' home institutions and students.

It is our goal that the artifacts in the pedagogical anthology will be a major resource for those who want to integrate DH methods and tools in a small, achievable way into the classroom. To standardize this array of artifacts we developed a uniform header for each artifact that includes the artifact type, the type of class or workshop, the intended audience, the time required, and the DH method and tool used. This header was included to help readers browse and find artifacts relevant to their interests. Each of these artifacts has been peer reviewed by the group during our

virtual session, and reviewed by the PIs for clarity and consistency. The peer review gave useful feedback to the authors which helped them to refine the artifact while also allowing the group to learn from and inspire each other.

Our artifacts are an addition to the growing body of DH syllabi, tutorials, and assignments that we hope will inspire others to step into DH. The anthology contributes to conversations about teaching DH by providing concrete examples of assignments and workshops, examples that can be reused, remixed, and adapted. Since all of the assignments are scaled to be small and introductory, and do not require major infrastructural investment, the anthology offers an entry point into DH to those who feel like teaching DH is out of their reach.

Appendix A

Institute Participants

Name	Title	Institution
Kristin Allukian	Assistant Professor of English*	University of South Florida
Ian Beamish	Assistant Professor of History	University of Louisiana-Lafayette
Shalyn Claggett	Associate Professor of English	Mississippi State University
Melinda Cro	Associate Professor of French	Kansas State University
Eve Dunbar	Associate Professor of English	Vassar College
Crystal Felima	Postdoctoral Fellow in Caribbean Studies Data Curation & Adjunct Lecturer in Language and Literatures	University of Florida
Carrie Johnston	Digital Humanities Research Designer	Wake Forest University
Corrine Kennedy	Humanities Librarian	Mississippi State University
Robyn Le Blanc	Lecturer in Classical Studies	University of North Carolina-Greensboro
Amy Lewis	Assistant Professor of Humanities & Liberal Arts	St. Norbert College
Ann McClellan	Professor of English	Plymouth State University
Pamela McVay	Professor of History	Ursuline College
Sarah Noonan	Assistant Professor of English	Saint Mary's College
Taylor Orgeron	Graduate Student in English	Louisiana State University
Jane Pinzino	Coordinator for Scholarly Resources for the Humanities	Tulane University
Hillary Richardson	Coordinator of Undergraduate Research and Information Literacy Librarian	Mississippi University for Women
Elizabeth Ricketts	Graduate Student in English	University of South Florida
Javier Sampedro	Lecturer in Spanish and Portuguese Studies	University of South Florida
Lena Suk	Assistant Professor of History	University of Louisiana-Lafayette
Emily Weirich	Associate Librarian for Research Services	University of Arizona, Center for Creative Photography
Lindsey Wieck	Assistant Professor of History	St. Mary's University
Jewon Woo	Assistant Professor of English	Lorain County Community College

*Note: institutional affiliation represents the participants' positions when they applied to the institute